SUMMARY

The proposed project is the construction and operation of a State permitted hospital heliport for emergency air ambulance flights. The hospital heliport (an elevated helipad) is proposed to be located adjacent to the main Kaiser Permanente hospital under construction on a 53-acre site at 700 Lawrence Expressway near Homestead Road in the City of Santa Clara. The helipad would be used for the emergency evacuation of critically ill patients to other medical facilities to receive specialized treatment.

Summary of Environmental Impacts

The following is a **brief summary** of project impacts and mitigation measures addressed within this SEIR. The complete project description and discussion of impacts and avoidance and mitigation measures can be found in the body of the text of the SEIR.

ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Land Use	
The proposed separation distance between the proposed helipad and existing residential properties would avoid land use conflicts from shade and shadow impacts, loss of privacy, dust impacts, and light spillover from helipad lighting. **Less Than Significant Impact**	No mitigation is required.
The proposed project could result in annoyance and sleep disturbance from helicopter landings and departures. As discussed in *Section III. C. Noise*, this periodic increase in noise would be a new significant noise impact. **Significant Impact**	The project includes *Noise Mitigation and Avoidance Measures* for periodic noise impacts as listed on pages v and vi of this summary and on pages 51 and 54 in *Section III. C. Noise* of this Draft EIR. Conditions in the Use Permit for the proposed helipad would limit the types of landings at the site to those of evacuation of critically ill patients where time is of the essence. This would restrict the number of flights and associated temporary increases in noise levels in the vicinity of the proposed helipad. While implementation of the measures listed in *Section III. C. Noise* could avoid or limit annoyance from helicopter flights to an extent, using conservative estimates (the worst-case scenario) the project would result in a significant, unavoidable periodic noise impact to some residential areas east of Lawrence Expressway and south of the proposed helipad. **Significant Unavoidable Impact**

ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Land Use (continued)	
The proposed project would not conflict with the General Plan or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. **Less Than Significant Impact**	No mitigation is required.
Aviation Hazards	
Construction and operation of a helipad for emergency air ambulance evacuations, in conformance with a State of California Heliport Permit and FAA regulations, will avoid substantial safety hazards for people residing or working in the project area. **Less Than Significant Impact**	No mitigation is required other than conformance with a State of California Heliport Permit and FAA regulations.
Under the proposed project, landings and takeoffs of emergency air ambulance helicopters would shift from a public street to a helipad designed, constructed and operated in conformance with a State of California Heliport Permit and FAA regulations. This change in the location and type of landing site will avoid and reduce safety risks associated with air ambulance operations. **Less Than Significant Impact/Beneficial Impact**	No mitigation is required other than conformance with a State of California Heliport Permit and FAA regulations.
Air ambulance flights to and from a proposed new helipad at the Kaiser Permanente Santa Clara Medical Center would not result in substantial safety risks to residents under flight paths or in the vicinity of the helipad based upon a review of national accident rates and proposed operations. **Less Than Significant Impact**	No mitigation is required.
Noise	
The proposed project would not expose people to noise levels in excess of time averaged noise standards in the City of Santa Clara General Plan or noise regulations in the California Code of Regulations, California Airport Noise Regulations. **Less Than Significant Impact**	No mitigation is required for time averaged noise levels.

ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Noise (cont.)	
Some residential areas near the planned flight path between Saratoga Creek and Lawrence Expressway and south of the proposed helipad would be exposed to temporary increases in noise levels to 92 dBA SEL or more during emergency helicopter landings and departures. In the near term, one to four nighttime helicopter overflights per year would not result in a substantial increase in periodic noise. Using a conservative estimate (worst-case conditions) where all flights occurred during nighttime hours, sleep disturbance could occur approximately 15 times per year in the future. This would result in a significant periodic noise impact to residents. **Significant Impact**	The conditions in the Use Permit for the proposed helipad would limit the types of landings at the site to those of evacuation of critically ill patients where time is of the essence. This would restrict the number of flights and associated temporary increases in noise levels in the vicinity of the proposed helipad. The project also includes the following measures to avoid or limit annoyance from occasional helicopter overflights to the extent feasible: • A program of monitoring helicopter operations will be established by Kaiser Permanente. The applicant shall submit to the Director of Planning on July 1st of each year a copy of the helipad log, which includes dates and times of all arrivals and departures, helicopter type and flight path used, and reason for each helicopter flight. Primary approach and departure flight paths will be posted at the facility and provided to all helicopter pilots. Deviations from the approved flight path/safety areas may be flown only due to wind conditions judged by pilots to be an overriding safety concern or safety direction from the FAA or air traffic controllers. • A Helipad Noise Disturbance Coordinator responsible for responding to any local complaints about emergency helicopter overflight noise will be designated by Kaiser Permanente. The disturbance coordinator would determine the cause of the noise complaint (e.g., date and time of reported operations and routes and elevations flown). The telephone number for the disturbance coordinator will be available at the hospital and included in notices sent to neighbors regarding the proposed project. Annual reports of noise complaints will be forwarded to the City of Santa Clara

ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Noise (continued)	
	Director of Planning along with helipad logs. • The Helipad Noise Disturbance Coordinator, or other Kaiser Permanente staff, will (to the extent feasible) notify emergency communications dispatchers in the City of Santa Clara of incoming emergency helicopter flights. The purpose of timely notification is to facilitate responses to inquiries by citizens and other agencies as to the nature and purpose of helicopter overflights in the area. Since the timing and frequency of helicopter operations is a function of when non-scheduled (emergency) evacuations are required, and using conservative estimates (the worst-case scenario) more than 10 nighttime flights per year could occur, the project would result in significant and unavoidable periodic noise annoyance from new emergency helicopter operations. **Significant Unavoidable Impact**
Patient rooms on the south side of the hospital closest to the hospital would be exposed to a periodic increase in noise levels associated with emergency helicopter landings and departures. This temporary and short-term noise exposure would be infrequent and individual patients would be unlikely to be exposed to multiple events. The proposed location of the helipad, therefore, would not result in a significant temporary or periodic increase in ambient noise levels in hospital patient rooms. **Less Than Significant Impact**	No additional mitigation is required.
Visual Resources	
Construction of the proposed helipad would not substantially degrade the existing visual character or quality of the site or substantially alter any existing views of scenic vistas or resources. **Less Than Significant Impact**	No mitigation is required.

ENVIRONMENTAL IMPACTS	MITIGATION AND AVOIDANCE MEASURES
Visual Resources (continued)	
Due to the limited operation of lighting for helicopter landings and departures during nighttime hours and the separation distance and orientation of proposed lighting fixtures, lighting of the proposed helipad would not result in an adverse light impact to nearby residential uses. **Less Than Significant Impact**	No mitigation is required.
Cumulative Impacts	
Due to the relatively low number and the short duration of helicopter overflights, the proposed project would not considerably contribute to an exceedance of time-averaged noise guidelines or standards in the City of Santa Clara General Plan resulting from past, current and future projects in the area. **Less Than Significant Cumulative Noise Impact**	No mitigation is required.
Calls for assistance to the police department to assist with helicopter landings would decrease under the proposed project, which would be a beneficial impact. The proposed project would not contribute to any adverse impacts to public services. **Less Than Significant Cumulative Services Impact**	No mitigation required.
With the exception of the Kaiser Permanente Medical Center, it is not anticipated that the timing of the proposed project would occur simultaneously with construction of one or more of the cumulative projects in the greater Santa Clara area. The Kaiser Permanente Medical Center Replacement Project includes measures, The proposed project would be subject to measures, such as dust control measures and limits on construction hours, to reduce or avoid short-term impacts during construction. These requirements, which would reduce or avoid cumulative construction impacts to a less than significant level. **Less Than Significant Cumulative Construction Impacts**	No additional mitigation measures required.

SUMMARY OF ALTERNATIVES

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which "will feasibility attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the project." The objectives of the proposed project are listed on page 17 of this EIR.

The significant impact identified in this EIR as resulting from the proposed project is a periodic noise impact that could result in nighttime sleep disturbance. This impact is identified in both the Noise and Land Use sections of this EIR. Because no combination of measures have been identified that would reduce this impact to a less than significant level, this impact would be significant and unavoidable.

A. NO PROJECT ALTERNATIVE

The CEQA Guidelines stipulate that an EIR specifically include a "No Project" Alternative, which should discuss both "the existing conditions, as well as what will be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services."

Possible scenarios under a "No Project" alternative would be 1) no construction of an on-site helipad and use of ground ambulances for all evacuations; and 2) no construction of an on-site helipad and use of Norman Y. Mineta San José International Airport facilities.

1. Ground Ambulance Evacuation

The distance between the Kaiser Permanente site on Lawrence Expressway and Stanford Medical Center is approximately 15.9 miles. Ground ambulance evacuation from Kaiser Permanente to Stanford Medical Center would take approximately 17-20 minutes during non-peak hour traffic. Approximately 12 miles of the trip could be on Interstate 280; the remainder of travel would be on local streets.

Evacuation of ECMO patients would require specialized equipment and medical staff in a critical care ground ambulance. Critical care ambulances used for interfacility transfers are not the ambulances assigned to respond to 911 emergency calls as a part of the County's Emergency Medical Response (EMS) system. Dispatch of a specialized crew from Stanford University or another critical care/interfacility ambulance provider to the Kaiser Santa Clara facility would require additional travel time.

This alternative would avoid short-term, periodic noise generated by helicopter overflights approximately three to four times per year in the near term and approximately 15 times per year in future years if additional specialized life-saving treatments requiring helicopter evacuations become available at other Bay Area hospitals in the future.

From a medical standpoint, ground ambulance evacuation may not be feasible for all critical patients where transportation time is of the essence for patient survival. Limiting evacuations to ground ambulance only could result in patient mortality or brain damage for some individuals.

The No Project/Ground Ambulance Only alternative evacuation scenario would not conform to any of the basic objectives of the project, including medical objectives related to transfers of critically ill patients when imperative for patient survival. It also would not conform to objectives for constructing a helipad that meets FAA and State of California regulations and avoiding the need to have road closures or assistance from the Santa Clara Police Department to accommodate emergency evacuations from Kaiser Hospital.

2. Ground Ambulance Evacuation to an Existing Heliport: San José International Airport

Facilities for helicopter landings and take-offs are located on the west side of San José International Airport off Coleman Avenue. The distance between the Kaiser Permanente site on Lawrence Expressway and the west side of Norman Y. Mineta San José International Airport is approximately 7.9 miles. Ground ambulance evacuation from Kaiser Permanente to helicopter facilities at San José International Airport would take approximately 10-15 minutes during non-peak hour traffic. The predominant direction of travel would be to the northeast, away from the Stanford Hospital facility. Like the ground ambulance only scenario above, a critical care ambulance for interfacility transfer would be required.

This alternative would avoid short-term noise emissions generated by helicopter overflights in the vicinity of the Kaiser Santa Clara Medical Center approximately three to four times per year in the near term and approximately 15 times per year in future years if additional specialized life-saving treatments requiring helicopter evacuations become available at other Bay Area hospitals in the future.

This alternative scenario would increase the travel time for patients and increase the number of transfers between hospital facilities and ground and air ambulances. It would not be a feasible or effective method of transferring critical patients from the future Kaiser Santa Clara Medical Center to other facilities for specialized treatment where transportation time is of the essence for patient survival.

The No Project/Ground Ambulance Evacuation to an Existing Heliport scenario would not meet any of the basic project objectives, including medical objectives related to transfers of critically ill patients when imperative for patient survival. It also would not conform to the objective of avoiding the need to have road closures or assistance from the Santa Clara Police Department to accommodate emergency evacuations from Kaiser Hospital.

B. LOCATION ALTERNATIVES

The discussion below summaries four alternative locations considered within the Kaiser Santa Clara Medical Center site (refer to Figure 17 in the SEIR for locations).

1. Hospital Rooftop Alternative

This alternative consists of constructing a rooftop helipad on the new hospital roof. Elevator access to the rooftop would also be required.

The shells of the hospital buildings on the new Kaiser Permanente Santa Clara Medical Center Campus are complete and the interior work is approximately 80 percent complete at this time. Physical constraints to constructing a helipad on the new hospital roof include the

presence of roof top mechanical equipment (i.e., ventilation, cooling and heating systems). While access to the roof could be provided by adding an elevator to the roof, there would not be enough space for helicopter landings unless a platform was constructed over mechanical equipment. A constructed platform could adversely affect the performance of the already installed air handlers unless the platform is raised sufficiently above the air handlers to allow adequate air intake and exhaust without mingling of the air exchanges. The project architect estimates that an approximately 10 foot clearance above the mechanical equipment would be required. Considering the height of the mechanical equipment and the thickness of the helipad platform, the surface of the helipad could be approximately 25 feet above the top of the roof or roughly 85 feet above grade. The helipad would be located approximately 300 feet to the north of the proposed helipad.

Elevating the helipad further above the ground would increase separation (or slant) distance between a helicopter and residential areas during helicopter flights. The area under the 92 SEL contour would shift northward by approximately 300 feet and decrease by approximately by 30 to 40 feet in its width (northern and southern edges), about 50 feet at the western end of the contour (near the pad) and 150 feet at the eastern end of the contour (away from the helipad). This would diminish the area under the contour by approximately 350,000 square feet (approximately eight acres) but would continue to expose the residential uses to the east and to the south (near the boundary of the medical center site) to periodic noise impacts. Short-term maximum noise exposures, therefore, would be reduced, but not to a less than significant level.

Unlike the proposed project, a rooftop helipad and associated landing lights would be visible from Homestead Road and possibly Lawrence Expressway at Lehigh Drive. The helipad would be most visible from eastbound Homestead Road near Swallow Drive to the Kaiser Entrance on Homestead Road. While visual impacts would be greater than the proposed project, a rooftop helipad would not block scenic views or substantially degrade the existing visual character or quality of the site.

The addition of a helipad platform above the fourth floor of the hospital would rise above the maximum building height contemplated by the original Planned Development Zoning approval as reported in the 1994 Final EIR for the Kaiser Permanente Medical Center. The Development Agreement for the Kaiser site also calls for a three to four story hospital.

Location of a helipad on the hospital roof would meet the medical objectives of the proposed project. The shell of the new Kaiser hospital building is complete and interior finishing work is approximately 80 percent complete at this time. This alternative would require substantial redesign and reconstruction of the partially constructed hospital. The redesign and retrofitting of the building would require re-review of the hospital structure by the State of California Office of Statewide Health Planning and Development (OSHPD) as well as reconstruction. This alternative, therefore, may not meet the project objective related to opening a helipad and hospital in mid-2007.

One of the purposes of the objective regarding timing of the helipad and hospital opening is related to State of California seismic requirements for hospitals under Senate Bill (SB) 1953. The Kaiser Permanente Santa Clara Medical Center project currently under construction will provide a replacement hospital for the Kaiser facility on Kiely Boulevard. Delays associated with resign and reconstruction of the new hospital may affect Kaiser Permanente's compliance with SB 1953 requirements without an extension from the State of California.

2. Roof of Parking Structure Alternative

Under this alternative, a roof top helipad would be constructed on the upper level of the four-level parking structure in the southeast corner of the Kaiser Permanente Medical Center site. Like a hospital roof top location, elevating the helipad further above the ground would increase the separation (or slant) distance between a helicopter and residential areas during helicopter flights. Short-term maximum noise exposures, therefore, could be reduced.

This alternative is not considered physically feasible in that the helicopter landing area would be separated from the new hospital structure and transport of patients from the hospital to the roof of the parking structure would be difficult. Patients would either have to be moved by ground ambulance to the parking lot roof *or* wheeled through the hospital, across the surface parking lot, up the parking ramps to the roof area, which would not be in conformance with Kaiser Permanente's medical practice. The parking structure ramps would need to be used as the parking structure elevators are not large enough to accommodate critical care transport gurneys. Parking in a landing area would either need to be permanently prohibited or tow trucks might be required to move parked cars or trucks out of the way of a landing helicopter.

Delays associated with arranging for ground transportation and vehicle towing and difficulties with transfers of a critically ill patient from the hospital to a ground ambulance followed by transfer to an air ambulance could impact the health and mortality of critically ill patients. This alternative would not meet the medical objectives of the proposed project related to rapid patient access to off-site specialized, life-saving medical treatment facilities.

3. North Parking Lot Alternative

Under this alternative, a landing area would be designated, at-grade, in the parking lot to the north of the new hospital structure. This parking lot is approximately 220 feet wide and is located adjacent to internal roadways (refer to Figure 17). As presently designed and constructed, the light standards in the parking lot would be a hazard to landing helicopters and lighting of the parking lot would need to be modified to meet FAA safety criteria. A tow truck could be required to move cars that were in the way of landing helicopters. Landing at this location could disrupt other operations at the Medical Center as internal roadway closures could be required.

An at-grade helipad in the North Parking Lot would shift the flight path and short-term maximum noise exposures approximately 800 feet to the north, closer to Homestead Road. It would reduce short-term maximum noise exposures to residential areas to the east and south, but increase short-term maximum noise exposures to multi-family and single family residential uses north of Homestead Road. Helicopters traveling to the Kaiser site would fly over residential areas at similar elevations as the proposed project, but the individual residences within the 92 dBA noise contour would change**.** This alternative would shift impacts to the north and avoid some residential neighborhoods south of Homestead Road, but would not reduce periodic noise impacts to a less than significant level.

This alternative would require modification of lighting in an existing parking lot and could temporarily physically interfere with the use of the parking lot and operation of other medical center uses when helicopter landings and take-offs occur. It may be feasible to locate a landing area at this location; however, some restrictions on parking could be required.

This alternative would not wholly meet the medical objectives of the project, as helicopter landings could be delayed to allow for clearance of vehicles from the parking lot. The parking lot, as currently constructed, would not meet the project objective related to meeting safety requirements of the FAA and State of California for a helipad/heliport.

For the alternatives that include construction of a new helipad, all would be required to incorporate safety features in conformance FAA and State of California regulations. If so constructed and operated it would meet the objectives of avoiding the need for road closures or assistance from the Santa Clara Police Department and potential public safety impacts associated with emergency helicopter landings outside of a permitted heliport.

4. Helipad West of Calabazas Creek Alternative

Under this alternative, a helipad would be constructed on the Kaiser Permanente Medical Center site, west of Calabazas Creek. This alternative would require changes to planned medical center office uses and parking areas at this location.

Like the roof of parking structure alternative discussed above, this alternative is not considered physically feasible in that the helicopter landing area would be separated from the new hospital structure and a ground ambulance would be required to transport patients from the hospital to the helipad.

Delays associated with arranging for ground transportation and difficulties with transfers of a critically ill patient from the hospital to a ground ambulance followed by transfer to an air ambulance could impact the health and mortality of critically ill patients. This alternative would not meet the medical objectives of the proposed project.

Environmentally Superior Alternative

The Hospital Roof Top Alternative addressed in this SEIR would be environmental superior to the proposed project, but would not reduce the significant noise impact of the project to a less than significant level. This alternative would meet the medical objectives of the project however it may not meet the construction schedule objective of the project.